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CLAIMS:

What is claimed is:

1.   A method of verifying symbolic data for loaded
5   modules, comprising:
        reading trace data for a module;
        comparing the trace data with module symbolic data
in a merged symbol file; and
        verifying that the trace data matches the module
10 symbolic data in the merged symbol file based on one or
more predetermined criteria.

2.   The method of claim 1, wherein the one or more
predetermined criteria include one or more of a checksum,
15 a timestamp, a fully qualified path, and a segment size.

3.   The method of claim 1, wherein the trace data is
read from a trace buffer.

20 4.   The method of claim 1, wherein the trace data is
read from a trace file written to a storage device.

5.   The method of claim 1, wherein the reading,
comparing and verifying steps are performed dynamically
25 as trace data is written to a trace buffer.

6.   The method of claim 1, wherein the reading,
comparing and verifying steps are performed at a remote
time from when the trace data is written to a trace file.
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7.   The method of claim 1, wherein comparing the trace
data with module symbolic data in a merged symbol file
includes comparing a checksum and timestamp in the trace

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data with a checksum and timestamp in the module symbolic
data in the merged symbol file.

8.   The method of claim 7, wherein comparing the trace
5   data with module symbolic data in a merged symbol file
further includes comparing a fully qualified path in the
trace data with a fully qualified path in the module
symbolic data, if the checksum and timestamp in the trace
data does not match the checksum and timestamp in the
10   module symbolic data or the checksum and timestamp in the
trace data is not available.

9.   The method of claim 8, wherein comparing the trace
data with module symbolic data in a merged symbol file
15   further includes comparing a segment length in the trace
data with a segment length in the module symbolic data,
if the fully qualified path in the trace data does not
match the fully qualified path in the module symbolic
data.
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10.   The method of claim 1, wherein the one or more
criteria have an associated priority.

11.   The method of claim 10, wherein the one or more
25   criteria include checksum and timestamp, a fully
qualified path, and a segment size, and wherein the
checksum and timestamp has a highest priority and the
segment size has a lowest priority.

30   12.   The method of claim 1, wherein the merged symbol
file includes a plurality of module entries and wherein
comparing the trace data with module symbolic data in a
merged symbol file includes identifying a module entry

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that is a best match with the trace data.

13. The method of claim 12, wherein identifying a module
entry that is a best match with the trace data includes
5   comparing the trace data to each of the plurality of
module entries and identifying one of the plurality of
module entries as a best match based on which of the one
or more criteria is used to verify the module entry.

10   14. The method of claim 1, wherein the trace data
includes redundant information identifying a module for
each segment of the module.

15. The method of claim 1, wherein the redundant
15   information includes at least one of module checksum,
module timestamp and module fully qualified path.

16. A method of displaying data for analyzing a
performance trace of a computer application, comprising:
20   reading module trace data from a trace file;
          reading module symbolic data from a symbolic data
file;
          verifying that the module symbolic data corresponds
to the module trace data;
25   correlating the module symbolic data with the module
trace data to generate correlated data; and
          displaying the correlated data.

17. The method of claim 16, wherein the step of
30   verifying includes:
          comparing the trace data with the module symbolic
data; and
          verifying that the trace data matches the module

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symbolic data based on one or more predetermined
criteria.

18. The method of claim 17, wherein the one or more
5   predetermined criteria include one or more of a checksum,
a timestamp, a fully qualified path, and a segment size.

19. The method of claim 16, wherein the trace data is
read from a trace buffer.

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20. The method of claim 16, wherein the trace data is
read from a trace file written to a storage device.

21. The method of claim 17, wherein the one or more
15 criteria have an associated priority.

22. The method of claim 21, wherein the one or more
criteria include checksum and timestamp, a fully
qualified path, and a segment size, and wherein the
20 checksum and timestamp has a highest priority and the
segment size has a lowest priority.

23. The method of claim 16, wherein the merged symbol
file includes a plurality of module entries and wherein
25 comparing the trace data with module symbolic data in a
merged symbol file includes identifying a module entry
that is a best match with the trace data.

24. The method of claim 23, wherein identifying a module
30 entry that is a best match with the trace data includes
comparing the trace data to each of the plurality of
module entries and identifying one of the plurality of
module entries as a best match based on which of the one

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or more criteria is used to verify the module entry.

25.   The method of claim 16, wherein the trace data
includes redundant information identifying a module for

5   each segment of the module.

26.   The method of claim 16, wherein the redundant
information includes at least one of module checksum,
module timestamp and module fully qualified path.

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27.   An apparatus for verifying symbolic data for loaded
modules, comprising:
        A trace data storage device;
        A merged symbol file storage device; and

15   A processor coupled to the trace data storage device
and the merged symbolic data storage device, wherein the
processor reads trace data for a module from the trace
data storage device, compares the trace data with module
symbolic data in merged symbol file read from the merged

20   symbol file storage device, and verifies that the trace
data matches the module symbolic data in the merged
symbol file based on one or more predetermined criteria.

28.   The apparatus of claim 27, wherein the one or more

25   predetermined criteria include one or more of a checksum,
a timestamp, a fully qualified path, and a segment size.

29.   The apparatus of claim 27, wherein the trace data
storage device is a trace buffer.

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30.   The apparatus of claim 27, wherein the processor
reads the trace data, compares the trace data with module
symbolic data and verifies that the trace data matches

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the module symbolic data dynamically as trace data is
written to the trace data storage device.

31. The apparatus of claim 27, wherein the processor
5 reads the trace data, compares the trace data with module
symbolic data and verifies that the trace data matches
the module symbolic data at a remote time from when the
trace data is written to the trace data storage device.

10 32. The apparatus of claim 27, wherein the processor
compares the trace data with module symbolic data in a
merged symbol file by comparing a checksum and timestamp
in the trace data with a checksum and timestamp in the
module symbolic data in the merged symbol file.
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33. The apparatus of claim 32, wherein the processor
compares the trace data with module symbolic data in a
merged symbol file by further comparing a fully qualified
path in the trace data with a fully qualified path in the
20 module symbolic data, if the checksum and timestamp in
the trace data does not match the checksum and timestamp
in the module symbolic data or the checksum and timestamp
in the trace data is not available.

25 34. The apparatus of claim 33, wherein the processor
compares the trace data with module symbolic data in a
merged symbol file by further comparing a segment length
in the trace data with a segment length in the module
symbolic data, if the fully qualified path in the trace
30 data does not match the fully qualified path in the
module symbolic data.

35. The apparatus of claim 27, wherein the one or more

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criteria have an associated priority.

36.   The apparatus of claim 35, wherein the one or more
criteria include checksum and timestamp, a fully
5   qualified path, and a segment size, and wherein the
checksum and timestamp has a highest priority and the
segment size has a lowest priority.

37.   The apparatus of claim 27, wherein the merged
10   symbol file includes a plurality of module entries and
wherein the processor compares the trace data with module
symbolic data in a merged symbol file by identifying a
module entry that is a best match with the trace data.

15   38. The apparatus of claim 37, wherein the processor
identifies a module entry that is a best match with the
trace data by comparing the trace data to each of the
plurality of module entries and identifying one of the
plurality of module entries as a best match based on
20   which of the one or more criteria is used to verify the
module entry.

39.   The apparatus of claim 27, wherein the trace data
includes redundant information identifying a module for
25   each segment of the module.

40.   The apparatus of claim 27, wherein the redundant
information includes at least one of module checksum,
module timestamp and module fully qualified path.
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41.   An apparatus for displaying data for analyzing a
performance trace of a computer application, comprising:
    A trace data storage device;

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A symbolic data storage device; and

A processor coupled to the trace data storage device
and the symbolic data storage device, wherein the
processor reads module trace data from the trace data
5   storage device, reads module symbolic data from the
symbolic data storage device, verifies that the module
symbolic data corresponds to the module trace data,
correlates the module symbolic data with the module trace
data to generate correlated data, and displays the
10   correlated data on a display device.

42.   A computer program product in a computer readable
medium for verifying symbolic data for loaded modules,
comprising:
15   first instructions for reading trace data for a
module;
     second instructions for comparing the trace data
with module symbolic data in a merged symbol file; and
     third instructions for verifying that the trace data
20   matches the module symbolic data in the merged symbol
file based on one or more predetermined criteria.

43.   The computer program product of claim 42, wherein
the one or more predetermined criteria include one or
25   more of a checksum, a timestamp, a fully qualified path,
and a segment size.

44.   The computer program product of claim 42, wherein
the second instructions for comparing the trace data with
30   module symbolic data in a merged symbol file include
instructions for comparing a checksum and timestamp in
the trace data with a checksum and timestamp in the
module symbolic data in the merged symbol file.

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45. The computer program product of claim 44, wherein
the second instructions for comparing the trace data with
module symbolic data in a merged symbol file further
5   include instructions for comparing a fully qualified path
in the trace data with a fully qualified path in the
module symbolic data, if the checksum and timestamp in
the trace data does not match the checksum and timestamp
in the module symbolic data or the checksum and timestamp
10   in the trace data is not available.

46. The computer program product of claim 45, wherein
the second instructions for comparing the trace data with
module symbolic data in a merged symbol file further
15   include instructions for comparing a segment length in
the trace data with a segment length in the module
symbolic data, if the fully qualified path in the trace
data does not match the fully qualified path in the
module symbolic data.
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47. The computer program product of claim 42, wherein
the merged symbol file includes a plurality of module
entries and wherein the second instructions for comparing
the trace data with module symbolic data in a merged
25   symbol file include instructions for identifying a module
entry that is a best match with the trace data.

48. The computer program product of claim 47, wherein
the instructions for identifying a module entry that is a
30   best match with the trace data include instructions for
comparing the trace data to each of the plurality of
module entries and identifying one of the plurality of
module entries as a best match based on which of the one

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or more criteria is used to verify the module entry.

49.   A computer program product in a computer readable
medium for displaying data for analyzing a performance
5   trace of a computer application, comprising:
        first instructions for reading module trace data
from a trace file;
        second instructions for reading module symbolic data
from a symbolic data file;
10   third instructions for verifying that the module
symbolic data corresponds to the module trace data;
        fourth instructions for correlating the module
symbolic data with the module trace data to generate
correlated data; and
15   fifth instructions for displaying the correlated
data.